

What is claimed is as follows:

1. A stent comprising:
a first segment comprising a plurality of closed serpentine circumferential bands,
5 adjacent closed serpentine circumferential bands connected to one another, each closed
serpentine circumferential band comprising a plurality of struts, struts which are
circumferentially adjacent one another connected one to the other by a turn, each strut
having a length, the struts generally increasing in length from a minimum strut length to
a maximum strut length and then generally decreasing in length from the maximum strut
10 length to the minimum strut length as the circumferential band is traversed in its entirety
in a clockwise direction, wherein the struts of maximum length in the closed serpentine
bands are generally longitudinally aligned with one another.
2. The stent of claim 1 wherein the struts of a closed serpentine band continually
15 increase in length from a minimum strut length to a maximum strut length and then
continually decrease in length from the maximum strut length to the minimum strut
length as the circumferential band is traversed in its entirety in a clockwise direction.
3. The stent of claim 1 wherein the struts of maximum length are arranged in a
20 longitudinal strip.
4. The stent of claim 1, further comprising at least one segment of a different
geometry from the first segment.
- 25 5. The stent of claim 1 wherein each closed serpentine circumferential band has a
first end and a second end and the turns at only one of the first and second ends are in
general circumferential alignment, the turns at the other end being non-aligned
circumferentially.
- 30 6. The stent of claim 5 including closed serpentine bands having turns which are in
general circumferential alignment at the first ends of the closed serpentine bands and
turns which are non-aligned circumferentially at the second ends; and including closed
serpentine bands having turns which are in general circumferential alignment at the

second ends of the closed serpentine bands and turns which are non-aligned circumferentially at the first ends.

7. The stent of claim 6 including two closed serpentine bands which are adjacent
5 one another, one of the two closed serpentine bands having circumferentially non-aligned turns at the second end, the other of the two closed segments having circumferentially non-aligned turns at the first end, the circumferentially non-aligned turns of the two closed serpentine bands facing one another.

10 8. The stent of claim 1 including one or more closed serpentine bands whose turns at a first end are circumferentially non-aligned and whose turns at a second end are circumferentially non-aligned.

9. The stent of claim 1 wherein each of the closed serpentine bands has
15 circumferentially non-aligned turns at a first end of the band and circumferentially non-aligned peaks at a second end of the band.

10. The stent of claim 1 wherein the struts of minimum length in the closed
serpentine bands are generally longitudinally aligned with one another.

20 11. The stent of claim 1 wherein at least one connecting element comprises a curved portion.

12. The stent of claim 11 wherein at least one connecting element includes a peak
25 and a valley.

13. The stent of claim 1, wherein a first connecting element has a greater length than a second connecting element, the first connecting element being circumferentially adjacent to the second connecting element.

30 14. An unexpanded stent comprising a plurality of interconnected struts disposed in a tubular structure, a first portion and a second portion of the tubular structure including struts which generally increase in length to a maximum length and then generally

decrease in length to a minimum length as the stent is traversed circumferentially about a longitudinal axis, a maximum length strut of the first portion being longitudinally aligned with a maximum length strut of the second portion, wherein the first portion is proximal to the second portion.

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15. The stent of claim 14 wherein the maximum length strut of the first portion is the same length as the maximum length strut of the second portion.

16. The stent of claim 14 wherein the maximum length strut of the first portion is
10 shorter than the maximum length strut of the second portion.

17. A stent comprising a plurality of interconnected struts defining a wall surface,
the wall surface including a segment having a strip extending from one end of the
segment to the other end of the segment and extending over a portion of the
15 circumference of the stent, the strip characterized as having a plurality of rows of
interconnected struts which are of greater length than the remaining struts of the
segment.

18. A stent comprising a plurality of interconnected struts defining a wall surface,
20 the wall surface including a segment having a strip extending from one end of the
segment to the other end of the segment and extending over a portion of the
circumference of the stent, the strip characterized as having a plurality of rows of
interconnected struts which are of greater flexibility than the remaining struts of the
segment.

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19. The stent of claim 18 wherein the struts of greater flexibility are longer than the
remaining struts of the stent.

20. The stent of claim 18 wherein the struts of greater flexibility are thinner than the
30 remaining struts of the stent.